



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, DC 20530
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 872,400	06/01/2001	Markus Andreasson	65088 NHZ RSM	2646

5896 04/01/2003
Cooper & Dunham LLP
1185 Avenue of the Americas
New York City, NY 10036

EXAMINER

KIM, AHSHIK

ART UNIT PAPER NUMBER

2876

DATE MAILED: 04/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/872,400

Applicant(s)

ANDREASSON ET AL.

Examiner

Ahshik Kim

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01/07/03 (Amendment).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-17 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1 ☐ Certified copies of the priority documents have been received.
- 2 ☐ Certified copies of the priority documents have been received in Application No. _____.
- 3 ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____

4) ☐ Interview Summary (PTO-914) Paper No(s) _____

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other

DETAILED ACTION

Amendment

1. Receipt is acknowledged of the amendment filed on January 7, 2003. Claims 1-17
5 remain for examination.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

- 10 A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

- 15

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment
20 by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-3, 5-9, 11-13, and 15-17 are rejected under 35 U.S.C. 102(e) as being anticipated by He et al. (US 6,328,213).

Art Unit: 2876

the analog signal resulting from the portion of the captured barcode, the system determines a level of blur in the signal (See abstract). Once level of blur has been determined, a different technique is utilized in processing the electrical signal to produce digitized signal (col. 2, lines 37+). The system also discloses CCD, which captures image of the barcode in two-dimensional form (col. 4, lines 2+).

Re claim 2, edges are detected when the bar - black portion makes a transition to space -- white portion (See abstract, col. 1, lines 50+) or from space to a bar. As shown in figure 2, A--- A line suggests a beam/band over the barcode, which is perpendicular to the barcode.

Re claim 3, He et al. further teaches generating a histogram for the portion of the read bar code (col. 6, lines 23+).

Re claims 11-13, when a histogram is generated, a threshold is used to determine proper edge transitions (col. 2, lines 47+), which can be used in constructing the rest of the barcode. Obviously, in generating the barcode image, the one with the lowest threshold/error is the most probable image.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over He et al. (US 6,328,213) in view of Dwinell et al. (US 6,267,293). The teachings of He et al. have been discussed above.

He et al. fails to specifically teach or fairly suggest of reading and processing a barcode at an angle other than perpendicular to the code.

Dwinell discloses a barcode reading and processing system (see figure 2) wherein the barcode 20 may be read from an angle and partially read data can be reconstructed (col. 6, lines 56+).

In view of Dwinell's teaching, it would have been obvious to an ordinary skill in the art at the time the invention was made to employ well-known barcode reading technique wherein the scanning beam is not perpendicular to the barcode to the teachings of He et al. in order to read the barcode from all directions/angles and thus, improve overall efficiency of the reading system. By scanning the code in omni-direction, aligning and scanning time on the product can be

reduced and the product can be scanned from the physical stream and

Art Unit: 2876

fatigue. Accordingly, such a modification would have been an obvious extension as taught by Dwinell for accommodating the user/customer, and thus an obvious expedient.

4. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over He et al. (US 6,328,213) in view of Plesko (US 5,656,805). The teachings of He et al. have been discussed above.

He et al. fails to specifically teach or fairly suggest that the reading/scanning device is a pen type.

Plesko discloses a barcode reading pen 1, which reads one-dimensional and two-dimensional code (See abstract)

In view of Pleskon's teaching, it would have been obvious to an ordinary skill in the art at the time the invention was made to design a reading device in the form of a pen in order to provide a comfort just like using a pen and capacity to scan an item from a distance. Pen type scanners also provide users with a range of scanning speed and continuous scanning angles. Although He et al. was silent on the actual form of the device, a wand/pen type of scanning device is old and well known in the art. Moreover, whether to select stationary or portable scanner such as a scanning pen can be considered to a design choice of a user. Accordingly, a user can choose any scanning device to suit their particular needs or design preference.

5. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: Although He et al. discloses error handling in edge transitions or reconstructing the barcode, the cited references fail to specifically teach or suggest of disclosing the error function in terms of speed of the reading device as set forth in claim 10.

Response to Arguments

7. Applicant's amendment and arguments filed on January 07, 2003 have been fully considered, but they are not persuasive.

Examiner acknowledges that claim 10 was inadvertently rejected in paragraph 5 when it was objected as conditionally allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims in paragraph 8 in previous Office Action.

In the remarks section (from page 3), Applicant argues that He patent does not disclose "methods and devices for recording a barcode by: (1) capturing a sequence of two-dimensional images covering portions of the bar code; (2) detecting bar code edges in the sequence of images; (3) determining, based on the edges, the most probable sequence of displacements between the images; and (3) reconstructing the bar code using the sequence of the most probable sequence of

Art Unit: 2876

It is the Examiner's view that elements listed in (1)-(4) are disclosed in the reference to He. As discussed in paragraph 2 above, He patent captures a sequence of two-dimensional images (barcode may be one-dimensional code, but it is two-dimensional image), detects bar code edges, determines probable code sequence based on relationships among transitions (col. 4, lines 9+), and decode the indicia based on such information.

The Examiner also notes that the Applicant asserts that the "bar code edges" in instant application is different from "edge detection" or "edge transition" used in He patent. However, it is the Examiner's position that "bar code edges" without further limitation, would be reasonably interpreted by one ordinary skill in the art as black bars, spaces and transition, not a starting point or stopping point of the code.

In view of the above, He patent discloses all the elements listed in claims 1, 13, 16 and 17. Moreover, 103 rejections all reasonable modifications one of ordinary skill in the art can contemplate for improving the scanner apparatus taught in He patent.

The amended claims and remarks describing these elements have been fully considered, but they are not persuasive, and therefore, the Examiner has made this Office Action final.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

Art Unit: 2876

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

- 5 however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

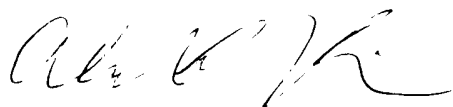
Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Ahshik Kim* whose telephone number is (703)305-5203 . The examiner can normally be reached between the hours of 6:00AM to 3:00PM Monday thru
10 Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (703) 305-3503. The fax number directly to the Examiner is (703) 746-4782. The fax phone number for this Group is (703)308-7722, (703)308-7724, or (703)308-7382.

- 15 Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [ahshik.kim@uspto.gov].

*All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that
20 sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.*

- 25 Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



30 Ahshik Kim
Patent Examiner
Art Unit 2876
March 14, 2003



MICHAEL G. LEE
SUPERVISORY PATENT EXAMINER